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1138. The Economic Impact of Military Expenditures

Daniel Landau
(May 1993)

Levels of military spending in developing countries have been falling and are relatively low in areas with economic problems. Generally, military spending (typically about 4 percent of GDP) is not associated with lower rates of economic growth, of capital formation, or of government spending on health, education, and infrastructure, or with higher rates of inflation.

Landau addresses three questions about military spending in developing countries:

- What are levels of (and trends in) military spending as a percentage of gross national product?
- What impact does peacetime military spending have on growth, government spending on social welfare and infrastructure, and other key economic variables?
- What major factors influence the level of military spending?

Landau finds that military spending as a share of GNP generally fell in the 1980s, even in the Middle East and North Africa. The mean level of military expenditure as a share of GNP (MES) was 3.9 percent, well below the peak of 5.3 percent in 1976. In 1989, MES averaged only 2.7 percent in Latin America and 2.0 percent in Sub-Saharan Africa — the two regions with the most severe economic problems.

He finds no evidence of a negative relationship between military spending as a share of GNP and the peacetime growth rate of developing countries — except where military spending is high.

He finds that higher shares of MES are not associated with lower shares of government spending on education, health, and infrastructure. As MES increases, government spending as a share of GNP increases, which allows the level of spending on health, education, and infrastructure to be maintained.

He finds some evidence that increased military spending in the developing countries has a weak negative impact on investment and the balance of trade. He finds no evidence of a statistically significant relationship between military spending and inflation.

The most important determinant of peacetime military spending is the spending level of neighboring countries — in other words, the potential external threat. Regional conciliation and disarmament may be an important step toward reduced military spending.

This paper — a product of the Public Economics Division, Policy Research Department — is part of a larger effort in the department to study public expenditure issues in developing countries. This study was funded by the Bank's Research Support Budget under research project "The Economic Impact of Military Expenditures" (RPO 676-85). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Carlina Jones, room N10-063, extension 37699 (45 pages).

1139. Should Sub-Saharan Africa Expand Cotton Exports?

Jonathan R. Coleman and M. Elton Thigpen
(May 1993)

Sub-Saharan Africa's recent rapid expansion of cotton exports has not caused an "adding-up" problem. And further expansion of Sub-Saharan Africa's cotton exports is unlikely to have a significant impact on the world cotton market.

In the 1980s, cotton production in Sub-Saharan Africa expanded significantly. Annual production growth averaged 4.7 percent between 1980 and 1990, compared with only 1.2 percent for 1964-79. At the same time, cotton exports grew an average 8 percent a year, compared with almost no growth between 1964 and 1979.

Concern has been expressed, at the World Bank and elsewhere, about the "adding-up problem" of expanding exports for commodities that are highly price-inelastic. The concern has been that export expansion — as a result of project loans or structural adjustment programs — could lead to a fall in world prices and an overall reduction in export revenues.

Coleman and Thigpen assess whether expansion of cotton exports in Sub-Saharan African countries has produced an adding-up problem. They test the hypothesis that export expansion has led, or will lead, to a decline in the terms of trade, which would offset any benefits from export expansion.

Their results reject this hypothesis. Using comparative static analysis — comparing Sub-Saharan Africa's export share with estimated world demand elasticities — they show that Sub-Saharan Africa's 14 percent share of world exports is too small relative to the estimated price elasticity of demand (ranging from -0.2 to -0.3) to produce an adding-up problem.

Using an econometric model of the world fibers market, Coleman and Thigpen show that maintaining the high 1980s growth rate of cotton exports in the 1990s would increase Sub-Saharan African export revenues more than 50 percent by the end of the decade, compared with base-case projections. And, except when the price elasticity of world cotton demand is lowered substantially below its estimated value, estimates of the elasticity of export revenue relative to export volume were close enough to unity for Coleman and Thigpen to conclude that an adding-up problem does not exist for expanded cotton exports in Sub-Saharan Africa.

Their analysis also shows that the structural adjustment programs implemented in the 1980s are unlikely to have had a significant adverse impact on the world cotton market. A 20 percent real devaluation for all of Sub-Saharan Africa, for example, leads to an average 0.4 percent decline in the world price of cotton, while a 20 percent increase in producer cotton prices in all Sub-Saharan African countries leads to a 0.8 percent decline in the world price.

This paper — a product of the International Trade Division, International Economics Department — is part of a larger effort in the department to evaluate the impact on world markets of policy changes in primary commodity–producing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Grace Ilogon, room S7-033, extension 33732 (40 pages).

1140. How Retail Food Markets Responded to Price Liberalization in Russia after January 1992

Bruce Gardner and Karen M. Brooks
(May 1993)

Progress was made toward market integration in the seven months after price liberalization. Further development of food markets will require deeper price liberalization, removal of local controls, contin-

ued enterprise reform, privatization, demonopolization, and entry of new firms.

Under administered prices through the fall of 1991, Russia's food distribution system broke down, and it was feared that the food supply would be inadequate in the winter of 1992 and thereafter. In January and March 1992, price ceilings were removed on most items sold in state-owned Russian stores. Price liberalization was intended to return food to shelves and to improve the flow of food among regions through responses to price differentials. Privatization of the distribution system did not begin until October 1992. At the time of price liberalization the environment was still dominated by unrestructured state enterprises.

Retail prices immediately rose sharply and fluctuated. Because food prices did not stabilize after the initial jump, many people questioned whether price liberalization accomplished anything positive. Gardner and Brooks examine data on movements in food prices and volumes between December 1991 and August 1992 to examine how retail food markets responded to liberalization. They address the following questions:

Is there any evidence that after liberalization food returned to retail outlets that were essentially bare in December 1991? Is there evidence that transactions took place in response to price differentials (did markets begin to emerge despite the lack of privatization and demonopolization)? Did city-to-city price differentials evolve to reflect a price surface explainable by transportation costs and other economic variables? If not, why not?

Gardner and Brooks conclude that progress was made toward market integration in the seven months after price liberalization. The volume of food sold in monitored shops increased substantially. The geographic dispersion of prices declined over time. But large price differences between cities persisted that cannot be explained in terms of available economic variables.

Large economic gains could be achieved by further market integration.

This paper — a product of the Agricultural Policies Division, Agriculture and Rural Development Department — is part of a larger effort in the department to analyze changes in agriculture in economies. This research was supported by a grant to the University of Minnesota from the National Council on Soviet and Eastern European Research, and by the World Bank. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Cicely Spooner, room N8-039, extension 32116 (66 pages).

1141. Foreign Direct Investment in a Macroeconomic Framework: Finance, Efficiency, Incentives, and Distortions

Maxwell J. Fry
(May 1993)

Does foreign direct investment affect national saving both directly and indirectly through the rate of economic growth? It depends on which countries you're talking about. Pacific Basin countries appear to differ markedly from some other developing countries.

Does foreign direct investment (FDI) increase domestic investment, or does it provide additional foreign exchange for a pre-existing current account deficit, or some linear combination of the two? Fry investigates this question for a group of five Pacific Basin countries and a control group of 11 other developing countries. For the sample of all 16 developing countries, Fry finds that FDI does not provide additional balance of payments financing for a pre-existing current account deficit. In the control group of 11 developing countries, FDI is associated with reduced domestic investment — implying that FDI to those countries is simply a close substitute for other capital inflows. For the five Pacific Basin market economies, however, FDI raises domestic investment by the full extent of the FDI inflow.

Fry finds that FDI has a significantly negative impact on national saving in the sample of all 16 developing countries. For the control group, this negative effect is similar in magnitude to FDI's negative effect on domestic investment — implying a zero effect on the current account. But FDI's negative effect on national saving in the five Pacific Basin developing market economies implies that FDI could have more of a negative effect on the current account than through increased domestic investment alone.

Fry also investigates the impact of FDI on economic growth in these 16 countries, taking into account distortions in the economies. He estimates reduced-form current account equations, and presents an analytical framework for estimating FDI's effect on economic growth in the presence of incentive-disincentive packages and other economic distortions.

He illustrates his framework using indicators of foreign trade and financial distortions. His main conclusion: the effect of FDI differs markedly from one group of countries to another.

FDI has a negative effect on economic growth in the control group. It has the same positive effect on growth as domestically financed investment does in the Pacific Basin countries. The main cause for the different effect is the low level of distortion in the Pacific Basin countries.

This paper — a product of the Debt and International Finance Division, International Economics Department — is part of a larger effort in the department to study the benefits of foreign direct investment. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room S8-042, extension 31047 (30 pages).

1142. Rent-Seeking Trade Policy: A Time-Series Approach

Martin Rama
(May 1993)

Foreign-trade barriers that benefit a single firm or industry are more likely to increase with discretionary trade policies and under dictatorships. And although these barriers may produce short-run benefits, in the long run they have a negative effect on the growth rates of output and exports.

Using a time-series approach, Rama analyzes the relationship between the extent of rent-seeking trade policy and both political and economic variables. For rent-seeking trade policy, the indicator he uses is the number of foreign-trade regulations passed each year for the benefit of a single firm or industry.

Rama uses data from Uruguay for 1925-83. Uruguay, which experienced an impressive economic decline, is an outstanding example of a rent-seeking society. After being a wealthy economy in midcentury, it suffered almost complete stagnation, which led to social and political disintegration by the end of the 1960s. Three decades of restrictive regulations on foreign trade had created a nearly closed economy by the end of the 1960s. It was worth analyzing whether policymakers' great receptiveness to demands for protection could account for Uruguay's decline.

Over the period 1925-83, Rama finds almost 4,000 laws, decrees, and administrative resolutions that create, maintain, or modify a foreign-trade regulation for the benefit of a single firm or industry. About half of them explicitly identify the petitioner — usually a firm or guild. Since the size of the Uruguayan economy changed over the period studied, Rama scales the annual number of regulations by output or exports to measure the extent of rent-seeking trade policy.

Rama shows that the extent of rent-seeking trade policy increased with discretionary policies and under dictatorship. (In the period studied, there were two stages of democracy — until 1932 and from 1943-72 — and two stages of dictatorship.) He also shows that rent-seeking trade restrictions increased under import-substitution strategies and, more unexpectedly, under active export promotion. This suggests that discretionary power leads to wasteful distribution, whether it is used to support inward- or outward-oriented policies.

Finally, Rama analyzes the correlation between innovations in the trade policy indicator and innovations in the growth rates of output and exports, with a lag of up to 20 years. Surprisingly, he finds a positive correlation with output growth rates after two or three years. But the correlation becomes negative some years later, particularly in the case of exports. The short-run positive impact on growth rates, together with the surprisingly long time lag before the negative impact, may account for policymakers' receptiveness to demands for protection.

This paper — a product of the Trade Policy Division, Policy Research Department — is part of a larger effort in the department to understand the political economy of protection. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Dawn Ballantyne, room N10-023, extension 37947 (17 pages).

1143. Tariff Rates, Tariff Revenue, and Tariff Reform: Some New Facts

Lant Pritchett and Geeta Sethi
(May 1993)

Tariff rates on specific products and the ratio of tariff revenue to import value are only tenuously related. Above a 50 percent rate, collected rates do not increase at all despite increases in official rates.

The ad valorem tariff rates on specific products and the ratio of tariff revenue to import value, the collected rate, are only tenuously related, contend Pritchett and Sethi.

Using tariff and revenue data (at the tariff code line level of detail) for three developing countries, Pritchett and Sethi compare the statutory ad valorem tariff rates (official rates) with the ratio of tariff revenues to import values (collected rates). They document four facts:

- The collected rate for any given item of the tariff code has almost no relationship to the official rate for that item.
- The variation of collected rates around the official rate increases as the level of the official rate increases.
- The collected rates increase much less, on average, than one-for-one with the official rates.
- Above a certain level, collected rates do not increase at all despite increases in official rates. Collection rates appear to level off at roughly 50 percent. (In Kenya, collected rates are lower for high-tariff than for moderate-tariff items. Assigning lower rates for high-tariff items would actually increase revenue on those items.)

The implications of these findings are twofold for calculating general revenue:

- Rates are not the critical determinant of revenues. The revenue implications of large rate changes can be offset by modest changes in the system of exemptions, for example. The benefit of eliminating exemptions is primarily transparency. The costs of programs that provide import exemptions for, say, regional promotion, are often hidden in customs statistics.
- If pressures that cause collected rates not to increase one-for-one with tariff rates will continue to be present in any tariff regime, then these must be factored into tariff reform design.

This paper — a product of the Trade Policy Division, Policy Research Department — is part of a larger effort in the department to assist in the design of tariff reforms. The study was funded by the Bank's Research Support Budget under research project "Design of Tariff Reform: Theory, Evidence, and Implication" (RPO 676-77). Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maria Fernandez, room S9-035, extension 33766 (23 pages).

1144. The Foreign Trade Dimension of the Market Transition in Poland: The Surprising Export Performance and Its Sustainability

Bartlomiej Kaminski
(June 1993)

Contrary to expectations, the driving force behind the export upswing were manufactures — not raw materials, mineral fuels, or agricultural products.

To the extent that foreign trade has been discussed in the debate about the transformation of former centrally planned economies, discussion has focused on what should be done to minimize the costs of external adjustment through managed foreign trade and exchange rate policies. Little attention has been paid to the "supply-side" forces behind export expansion.

Kaminski addresses questions that have been ignored: What product categories were the driving force behind the expansion of exports to the OECD? To what extent were exports from the CMEA reoriented to the West? What was the factor content of exports to the OECD? Was export expansion accompanied by a shift in relative comparative advantage? Will the Central European economies preserve their recent gains in OECD markets?

He finds that developments from the beginning of the transformation program represent a dramatic acceleration of the trends in exports observed between 1984 and 1989. Contrary to expectations, the driving force behind the export upswing were manufactures — not raw materials, mineral fuels, or agricultural products. Exports expanded because of the efforts of state-owned enterprises to export more in metallurgy, electro-engineering, and chemical and light industries.

Evidence on the relationship between

Poland's export performance in the West (especially trade with the European Community) and the collapse of the CMEA seems to suggest that the fall in Polish exports to the CMEA was smaller than expected. The redirection of Polish exports from the CMEA fueled only limited export expansion to the West.

The developments in Polish trade during the first two years of the transformation program suggest that attempts to recreate the CMEA arrangements in some new guise would have unnecessarily weakened incentives to restructure the economy with its comparative advantage.

This paper — a product of the International Trade Division, International Economics Department — is a revised version of a paper presented at the conference "Transition to Democracy in Poland," organized by the Hoover Institution on War, Revolution, and Peace, Stanford University, California, in November 1992. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Pauline Kokila, room S7-040, extension 33716 (27 pages).

1145. The Simple(r) Algebra of Pension Plans

Dimitri Vittas
(June 1993)

Unless the real rate of interest exceeds the growth rate of real wages by a significant margin, payment of a reasonable pension rate requires a high contribution rate or a high active worklife ratio.

Chile's success with pension reform in the early 1980s and the continuing financial pressures facing the social security systems of many developing (and some industrial) countries have elicited considerable interest in the mechanics of pension systems that are based on fully funded individual capitalization accounts.

Vittas sets out the simple(r) algebra of both defined contribution and defined benefit plans. He notes the following results:

- Unless the real rate of interest exceeds the growth rate of real wages by a significant margin, payment of a reasonable pension rate requires a high contribution rate or a high active worklife ratio (the ratio of working life to retirement life).
- It is more difficult for a high-growth economy to provide a high pension rate, although the absolute level of the pension could be higher than the pension level in a low-growth economy with a high pension rate.
- When pensions are indexed to prices, the level of interest rates and growth rates affects positively the level of the pension rate. But when pensions are indexed to wages, only the difference between interest rates and growth rates has an effect on pension rates. In all cases, the active worklife ratio has a positive effect on the pension rate.
- The timing of contributions, and therefore the pattern of earnings over a person's full career, has a significant but not major effect on pension rates.
- Employer-based, final-salary, defined-benefit plans penalize early leavers and favor late high-fliers.
- Full funding with universal coverage and full lifetime careers would lead to a massive accumulation of capital, especially if the demographic structure resembles a pillar rather than the more traditional pyramid. This would have major implications for the productivity of capital and the functioning of financial systems.
- Full funding may not provide a solution to the financial pressures caused by demographic changes. An increase in the retirement age may be required under both funded and unfunded pension systems to accommodate population aging. This will result in a higher active worklife ratio and a lower dependency ratio.
- A mixed system — combining a redistributive first pillar and a fully funded defined-contribution second pillar — represents a more prudent, perhaps more equitable, approach to reforming pension systems.
- Variable contribution and pension rates, within specified limits, might be preferable and more consistent with greater reliance on personal choice.

This paper — a product of the Financial Sector Development Department — is part of a larger effort in the department to study pension systems and contractual savings. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Priscilla Infante, room N9-003, extension 37664 (35 pages).

1146. Is Poverty Increasing in the Developing World?

Shaohua Chen, Gaurav Datt, and Martin Ravallion
(June 1993)

New data suggest that the aggregate number of poor is increasing at roughly the rate of population growth. Poverty measures are highest in either South Asia or Sub-Saharan Africa, depending on the poverty line used. The only regions with falling poverty measures are South and East Asia.

Chen, Datt, and Ravallion assess the developing world's progress in reducing absolute-consumption poverty during 1981-91, using new data on the distribution of household consumption or income per capita for 40 countries (at two points in time for 18 of the countries). They apply dominance tests to the distributions after adjusting to purchasing-power parity.

They find that the incidence of aggregate poverty changed little. The number of poor increased at the rate of population growth. The region with the greatest aggregate poverty is either South Asia or Sub-Saharan Africa, depending on the poverty line used.

The experience was diverse across regions and countries. The only regions with falling poverty measures are South and East Asia.

This paper — a product of the Poverty and Human Resources Division, Policy Research Department — is part of a larger effort in the department to monitor progress in reducing poverty in the developing world. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Cook, room S13-064, extension 33902 (41 pages).

1147. Interest Rates, Growth, and External Debt: The Macroeconomic Impact of Mexico's Brady Deal

Stijn Claessens, Daniel Oks, and Sweder van Wijnbergen
(June 1993)

The debt-relief package worked in Mexico because it reduced uncertainty, not because it reduced transfers.

Interest rates fell sharply after Mexico's Brady deal, and private investment and growth recovered.

Claessens, Oks, and van Wijnbergen show that the main benefit of debt relief was not to lower expected payments but to reduce uncertainty. Reduced uncertainty was found to be the dominant factor in explaining the positive macroeconomic response (largely because of its favorable effect on exchange rate crises).

Econometrically, they find that the *variability* of the future net transfer had a significant impact but the *average* of the future net transfer itself did not.

Their results confirm that debt reduction has a positive macroeconomic effect, but reject the "debt overhang" hypothesis (the benefits to growth of a reduced tax burden) as the dominant factor.

Their main conclusion: Debt reduction can have a much greater impact than the magnitude of relief, coupled with standard growth models, would suggest. The secondary effects on private investment of reduced uncertainty about government policy is likely to be more important than the direct amount of debt reduction itself.

But private investment is unlikely to increase if uncertainty remains about future domestic macroeconomic stability and reform. The debt package would not have succeeded if the government had not put through a successful domestic reform program *before* the debt relief package.

This paper — a joint product of the Debt and International Finance Division, International Economics Department, and the Country Operations Division 1, Country Department II, Latin America and the Caribbean — is part of a larger effort in the Bank to study the impact of debt reduction on developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room S8-042, extension 33722 (27 pages).

1148. Economic Instability and Aggregate Investment

Robert S. Pindyck and Andrés Solimano
(June 1993)

Using the irreversibility approach to investment, a robust, negative relationship between inflation and capital formation is found for high-inflation countries in Latin America and for low-inflation economies in the OECD.

Recent literature suggests that because investment expenditures are irreversible and can be delayed, they may be highly sensitive to uncertainty. Pindyck and Solimano briefly summarize the theory, stressing its empirical implications.

Then, using cross-section and time-series data for a set of developing and industrial countries, they explore the empirical relevance of irreversibility and uncertainty to aggregate investment. They find that:

- The volatility of the marginal profitability of capital — a summary measure of uncertainty — affects investment as the theory suggests, but the effect is moderate, and greatest for developing countries.
- This volatility has little correlation with indexes of political instability used in recent studies of growth.
- Inflation is *highly* correlated with this volatility and is a robust determinant of investment and the marginal profitability of capital. The volatility of the real exchange rate also has an independent contribution in explaining investment.
- The relationship between inflation and investment is nonlinear, and different thresholds of inflation, where the relationship with investment becomes stronger, were detected for a group of high-inflation countries in Latin America and low-inflation economies in the OECD.

This paper — a product of the Transition and Macro-Adjustment Division, Policy Research Department — was prepared for the NBER Macroeconomics Conference, March 12, 1993. It will be published in the NBER Macro-Economic Annual in 1993. Research was supported by MIT's Center for Energy and Environmental Policy Research, the National Science Foundation, and the World Bank. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Sabah Moussa, room N11-017, extension 39019 (53 pages).

1149. How Labor Markets and Imperfect Competition Affect Tariff Policy

Martin Rama
(June 1993)

Labor market institutions provide a rationale for the difference between the "corporatist" consensus on free trade and the "populist" resistance to trade liberalization.

Protection may be a second-best policy when the domestic sector is imperfectly competitive. But the optimal tariff depends on labor market institutions too.

Rama considers two theoretical settings. The first is fully centralized wage bargaining, where all workers are unionized and wage differentials are redistributed among workers (the "Scandinavia" case). The second is negotiation at the firm level, where workers are unionized in imperfectly competitive sectors only, and wages may differ from sector to sector (the "Latin America" case). He uses the case of the competitive labor market as a benchmark.

In Scandinavia, free trade maximizes welfare. The central trade union internalizes the consequences of imperfect competition in the domestic sector. Since prices in this sector are a mark-up over labor costs, there is a wedge between the sectoral productivities of labor and, therefore, an inefficient allocation of manpower. By choosing a "moderate" wage, the central trade union replicates the effects of a subsidy to the imperfectly competitive sector so that no government intervention is required.

In Latin America, decentralized wage bargaining increases the wedge between the sectoral productivities of labor. While wages in the export sector are constrained by harsh competition in world markets, trade unions in the domestic sector can get higher wages without completely squeezing labor demand. An import tariff improves manpower allocation by reorienting demand toward the domestic sector. Since the second-best tariff is strictly positive, opening the economy leads to a drop in welfare.

Rama's analysis sheds some light on the political economy of protection. Particularly, it suggests that trade liberalization is more likely to raise welfare in the Latin America case when it is accompanied by changes in labor market institutions.

This paper — a product of the Trade Policy Division, Policy Research Department — is part of a larger effort in the department to understand how labor market policies and institutions affect economic performance. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Dawn Ballantyne, room N10-023, extension 37947 (22 pages).

1150. Wealthier Is Healthier

Lant Pritchett and Lawrence H. Summers
(June 1993)

In 1990 alone, more than half a million child deaths in the developing world could be attributed to poor economic performance in the 1980s. Wealthier nations are healthier nations.

With cross-country, time series data on health (infant and child mortality, and life expectancy) and per capita income, Pritchett and Summers estimate the effect of income on health.

They use instrumental variables estimation to identify the effect of income on health that is structural and causal, isolated from reverse causation (healthier workers are more productive and hence wealthier) or incidental association (some other factor may cause both better health and greater wealth).

The long-run income elasticity of infant and child mortality in developing countries lies between 0.2 and 0.4.

Using those estimates, they calculate that in 1990 alone, more than half a million child deaths in the developing world could be attributed to poor economic performance in the 1980s.

This paper — a product of the Office of the Vice President, Development Economics — is one in a series of background papers prepared for the *World Development Report 1993* on health. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact the *World Development Report* office, room T7-101, extension 31393 (41 pages).

1151. Is Growth Bad for the Environment? Pollution, Abatement, and Endogenous Growth

Charles van Marrewijk, Federick van der Ploeg, and Jos Verbeek
(July 1993)

In what circumstances, if any, do economic growth and environmental quality go hand in hand?

Van Marrewijk, van der Ploeg, and Verbeek investigate the implications of pollution as a byproduct of production and analyze how environmental concern affects the optimal rate of economic growth and optimal government policy.

The government must levy taxes on income to finance both productive government spending *and* abatement activities. It must levy an optimal tax. Too high a tax rate harms prospects for growth and too low a tax rate is bad for the environment.

Van Marrewijk, van der Ploeg, and Verbeek distinguish between two approaches to incorporate the environment into the model stock approach and the flow approach. The flow approach assumes that the level of environmental quality changes instantly if production or abatement levels change (this is relevant for analyzing externalities associated, for example, with noise). The stock approach assumes that pollution and abatement *indirectly* influence the environment by affecting the rate of change in the environment over time (this is more relevant for analyzing problems of acid rain).

They conclude that:

- "Win-win" situations (in which improvements in economic growth and environmental quality go hand in hand) cannot arise under the flow approach, but can arise under the stock approach — if and only if the intertemporal elasticity of substitution exceeds unity.
- Maximizing the economy's growth rate is never optimal unless consumers care nothing about the environment.

This paper is a product of the Systems Division, International Economics Department. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Jos Verbeek, room S9-116, extension 33935 (44 pages).

1152. Population, Health, and Nutrition: Annual Operational Review for Fiscal 1992

Denise Vaillancourt, Stacye Brown, and Others
(July 1993)

Growth in the population, health, and nutrition sector has been significant in the past five years, stimulated by the World Bank's renewed commitment to reduce poverty and its rapidly growing emphasis on human resource development.

Population, health, and nutrition (PHN) lending decreased in fiscal 1992 from the record levels of fiscal 1991, in both the amount and the number of operations. Lending amounted to $961.6 million for 16 projects, compared with $1,567.6 million for 28 projects in fiscal 1991.

This temporary dip in PHN lending is attributable largely to pipeline factors. Fiscal 1993 lending is projected to recapture if not exceed the fiscal 1991 level, and projections for fiscal 1994 and fiscal 1995 are for a continued increase in lending volume.

PHN projects approved in fiscal 1992 have been responsive to the World Bank's objective of poverty alleviation. Collectively, fiscal 1992 projects cover the essential features of good poverty work but the depth and quality of poverty work varies across projects. Drawing from the good practices observed and lessons recorded in this year's portfolio, the review offers the following suggestions, among others, for strengthening PHN interventions to alleviate poverty:

- Poverty information and monitoring must be accompanied by dissemination and sensitization activities to strengthen national understanding of poverty-related issues and national commitment to resolving them through the proper policy.
- Community involvement in project design and development requires clearly defined and carefully designed institutional and procedural mechanisms, and a concerted effort to make them work.
- It is essential that PHN sector work identify poor and vulnerable groups and assess their needs and demands for basic health, family planning, and nutrition services.
- Even the most demand-driven project designs targeted to clearly identified poverty groups require promotional activities to ensure that these groups partici-

pate in and benefit from project initiatives.

Health lending is now a decade old, and many innovations in PHN lending have emerged only in the past four or five years. This review demonstrates that good practices and new and promising ideas — well worth emulating — are scattered across PHN work.

Overall, PHN work is moving in the right direction and the quality of work is generally seen to be improving. Welcome trends (which should be encouraged and reinforced) include serious attention to the poorest, most vulnerable populations, growing consideration of the demand of target groups, and increased attention to monitoring and evaluation of sector performance.

This paper is a product of the Population, Health and Nutrition Department. Copies are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Otilia Nadora, room S6-065, extension 31091 (77 pages).

1153. North American Free Trade Agreement : Issues on Trade in Financial Services for Mexico

Alberto Musalem, Dimitri Vittas, and Asli Demirgüç-Kunt
(July 1993)

Implementation of the North American Free Trade Agreement (NAFTA) will generate substantial efficiency gains for Mexico's financial system and economy. The key to NAFTA's success in the financial sector will be effective prudential regulation and supervision. But Mexican financial institutions will need a reasonable transition period to modernize operations and rise to the challenge of their Canadian and U.S. counterparts.

To maximize the efficiency gains from NAFTA, the regulatory environment for Mexican banking, insurance, and securities markets should be further harmonized with those of the more advanced and efficient Canadian and U.S. markets.

Musalem, Vittas, and Demirgüç-Kunt argue that a prerequisite for NAFTA's success is to remove regulatory distortions and to eliminate opportunities for regulatory arbitrage. Moreover, eliminating or reducing disparities between the NAFTA countries' tax rates and ways of levying taxes would help prevent distortions, tax evasion, and tax avoidance.

Complete harmonization may not be feasible or even desirable, given the way the three countries' financial systems have evolved and the differences between their industrial structures and stages of economic development.

In banking, insurance, and securities markets, the main free trade issues are the convergence of authorization criteria and the removal of most of the obstacles to freedom of establishment. It is also important to harmonize guarantee schemes and to create well-defined Mexican schemes to protect small, unsophisticated investors rather than mismanaged institutions. The key to NAFTA's success in the financial sector will be effective prudential regulation and supervision — particularly because of the heavy financial pressures on the newly privatized banks and the financial groups that own them. Without effective supervision, the new owners of the banks may take excessive risks to recoup the substantial element of goodwill in the privatization price, before the protection from foreign competition and new entrants is phased out.

An integrated market will presuppose greater cooperation and information exchange among the national regulatory authorities to ensure, for instance, that weak banks do not undermine credit standards and that weak insurers do not offer deceptively low-priced policies. In these areas, Mexico needs intensive training and cooperation with the Canadian and U.S. regulatory authorities.

To increase the contestability of the financial markets and benefit from the transfer of financial technology, the Mexican financial system should be opened to foreign entry. But Mexico needs to modernize its financial institutions and Musalem, Vittas, and Demirgüç-Kunt conclude that the proposed NAFTA should allow for a gradual approach to foreign entry. A reasonable transition period, extending up to the year 2000, will give Mexican institutions ample time to achieve the efficiency gains that motivated the quest for the agreement in the first place.

This paper — a product of the Financial Sector Development Department — is based on a report produced for the Mexican authorities in March 1991. It updates the earlier report in relevant areas. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Priscilla Infante, room N9-003, extension 37664 (58 pages).

1154. Options for Pension Reform in Tunisia

Dimitri Vittas
(July 1993)

Tunisia's financially pressed pension system needs to rationalize benefits and improve investment performance in the near future. To anticipate deteriorating demographics, steps should also be taken to prepare for more radical reform: one pillar for redistribution, and one fully capitalized.

Tunisia's pension system provides old age, survivorship, and disability benefits to retired and disabled workers and their dependents. It is a partially funded system based on solidarity between generations. It is designed to provide insurance against loss of income in old age, especially for people who live longer than average, and to redistribute income more favorably toward low-income retired workers. Only to a limited extent does it achieve a third objective: compulsory long-term saving.

Vittas analyzes the structure of Tunisia's pension system, assesses its financial condition, and sets out options for pension reform. He finds that the current system:

- Is fragmented, comprising several schemes with different rules and conditions.
- Promises generous benefits, with high targeted replacement rates that may be unsustainable.
- Despite high benefits, operates with low contribution rates, because both the system and the labor force are young.
- Only weakly links contributions and benefits. It suffers from evasion of contributions and inflated benefit claims and redistribution (from capricious favoring of workers with low incomes and short credited service).
- Faces increasing financial pressures because it is maturing and expanding benefits, but its reserves show poor investment performance and it has failed to adjust contribution rates.

Vittas proposes the following main reforms:

• In the short run, reallocating social security contributions from family allowances to pensions and improving the financial performance of reserves.

• In the medium term, rationalizing benefit formulas through gradual use of lifetime actualized earnings, indexing pensions, gradually increasing the normal retirement age, and expanding the use of proportional pensions for workers with short careers.

• In the longer term, a more radical program to create a fully capitalized pillar that complements a redistributive pillar paying basic benefits. This would generate long-term savings, stimulate the development of capital markets, and facilitate the privatization program. A third pillar, voluntary savings encouraged by tax savings, would cover self-employed people not covered by occupational schemes.

This paper — a product of the Financial Sector Development Department — is part of a larger effort in the department to study pension systems. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact (Priscilla Infante, room N9-003, extension 37664 (32 pages).

1155. The Regulation and Structure of Nonlife Insurance in the United States

Martin F. Grace and Michael M. Barth
(July 1993)

Restrictive regulations on the U.S. nonlife insurance industry have affected its efficiency and profitability, especially for such mandatory lines as automobile insurance. Prudential regulation that emphasizes solvency monitoring is preferable to price, product, and entry controls.

The insurance industry is underdeveloped in most developing countries because of low levels of income and wealth and because restrictive regulations inhibit the supply of insurance services. But several countries have begun to reform their insurance industries.

To help those countries, Grace and Barth offer an overview of insurance regulation in the United States—and discuss the economics and market structure of nonlife insurance in entry and exit barriers, economies of scale, and conduct and performance studies.

They conclude that the U.S. nonlife insurance industry exhibits low concentration at both national and state market levels. Concentration is low even on a line-by-line basis.

The primary concern of regulators has been to protect policyholders from insolvency, but regulation has also often been used to protect the market position of local insurance companies against the entry of out-of-state competitors. Regulation has worked best when based on solvency monitoring, with limited restrictions on entry. It has been more harmful when it involved controls on premiums and products and on the industry's level of profitability.

Over the years the industry has shown a remarkable degree of innovation, although it has also faced many serious and persistent problems. The problems include the widespread crisis in liability (including product liability and medical malpractice), the crisis in automobile insurance, the volatility of investment income, the effects of market-driven pricing and underwriting cycles, and the difficulty of measuring insurance solvency.

The "long-tailed" lines of insurance — those that entail long delays in final settlements — are exposed to the vagaries of inflation and rising costs.

Two mandatory lines — third party automobile insurance and workers' compensation (for work accidents) — account for nearly 55 percent of premiums. These two lines — plus medical malpractice, other liability, and aircraft insurance — had combined ratios well over 125 percent in 1989.

The industry has some ability to collude and to set prices, but seems to be competitive and to earn profits below similarly situated financial firms. Insurance profitability is not consistently above or below normal returns, although earnings for mandatory and strictly regulated lines of automobile insurance and workers' compensation appear to be below-adequate for long-term viability.

This paper — a product of the Financial Sector Development Department — is part of a larger effort in the department to study the development of the insurance industry. Copies of the paper are available from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Priscilla Infante, room N9-003, extension 37664 (64 pages).

1156. Tropical Timber Trade Policies: What Impact Will Eco-Labeling Have?

Panayotis N. Varangis, Carlos A. Primo Braga, and Kenji Takeuchi
(July 1993)

Eco-labeling could be beneficial if pursued multilaterally and if used not as a "stick" but as a "carrot" to encourage proper environmental practices.

About 20 percent of the total production of tropical timber is traded internationally. But for Indonesia, Malaysia, Papua New Guinea, and some countries in West-Central Africa, tropical timber trade accounts for more than 50 percent of production.

Although the tropical timber trade has often been blamed for deforestation, Varangis, Primo Braga, and Takeuchi find that it contributes much less to deforestation than do poor policies for the production of tropical timber. Lack of tenure rights, short and uncertain logging concessions, low stumpage values, and inadequate monitoring of logging activities are among the major policy failures that help deplete the tropical forests.

Trade policies, often identified as an instrument for enforcing environmental objectives internationally, are inefficient instruments for correcting domestic distortions, and in the case of tropical timber trade, may affect the environment perversely.

Export and import restrictions ultimately depress the value of an already underpriced resource — the forest. Restrictions on log exports, for example, encourage wasteful processing of logs. Unless sound forest management policies are enforced domestically, the net effect could even be an increase in the rate of deforestation.

Import restrictions may have a marginal impact, since trade accounts for less than 20 percent of production and most of the tropical timber is imported in Asia, where such restrictions currently do not exist. Even if import restrictions had a significant impact, it would be in a reduction in value of tropical logs that would make alternative uses of the forest lands more profitable — so the rate of deforestation might not be reduced.

Eco-labeling's main strength is its capacity to discriminate (through market signals) in favor of timber produced under sound environmental practices. By contrast, bans and boycotts have an indiscriminate, perverse impact.

But if eco-labeling is imposed unilaterally by a subset of countries, its effectiveness will be doubtful. It will lead to trade diversion and potentially perverse environmental results, not to mention an increase in GATT trade disputes. Even if eco-labeling is adopted by all importing countries, there could still be trade diversion in tropical timber products because some consumers may not prefer certified timber, given its higher price.

Eco-labeling programs should be designed so that producers see them not as a nontariff barrier but as an instrument for capturing the rents associated with prevailing environmental concerns in the developed world. Consumer education is important to the success of such programs, and eco-labeling programs should be designed accordingly.

This paper — a product of the International Trade Division, International Economics Department — is part of a larger effort in the department to evaluate the impact on world markets of environment-related trade policy instruments. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Dawn Gustafson, room S7-044, extension 33714 (31 pages).

1157. Intertemporal and Interspatial Comparisons of Income: The Meaning of Relative Prices

Sultan Ahmad
(July 1993)

Harmonizing methods for comparing prices is essential for improving comparisons of outputs over time and space. And a synthesis of methods would reduce the cost of collecting and disseminating relevant information.

The conceptual issues confronting compilers of price indices have not changed much over the years. They include the intractability of basic index-number problems, the practical difficulties of sampling and matching prices, and the uncertainties about the appropriate weighting scheme for comparing events in specific locales over time and across locales.

Ahmad considers inconsistencies in some measures of time-to-time and place-to-place comparisons of income. He argues for a method that harmonizes price work across generally recognized national price compilations, such as consumer price indices (CPIs), the International Comparison Programme (ICP), and national accounting.

Modern economies tend to be more open, so relative prices should be more similar, but it is increasingly apparent that price levels and trends can differ considerably even within a nation — particularly those encompassing economically heterogeneous areas.

The global ICP exercise has provided useful insights into the issues involved. At the same time, international comparisons of the type ICP aims to facilitate are now seen as being more sensitive than expected to changes in relative prices. ICP has given little attention to this issue, but there is a rich literature on the subject with respect to CPIs. The common ground for the two logics is essentially national accounts, broadly defined.

Through conceptual and practical work done by the World Bank on the topic, Ahmad suggests that harmonizing the various methods is essential to a proper interpretation of the market signals that prices send to economic agents. He also explains how a better synthesis reduces the overall cost of collecting relevant information and disseminating it to users.

This paper — a product of the Socio-Economic Data Division, International Economics Department — was presented at the meetings of the Allied Social Sciences Associations in Anaheim, California, January 5-7, 1993. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Elfrida O'Reilly-Campbell, room S7-136, extension 33707 (20 pages).

1158. Population Growth, Externalities, and Poverty

Nancy Birdsall and Charles Griffin
(July 1993)

The two major arguments for fertility reduction involve externalities and income redistribution. The implications of the two arguments for policy are the same — both require behavioral change by the poor. Their behavior is most likely to change if the change improves their welfare — which should therefore be the focus of population programs.

Birdsall and Griffin review the implications for social policy in developing countries of two major justifications for fertility reduction: the externality argument and the income redistribution argument.

First they set out the arguments. In terms of how policy affects the poor, they show that the implications of the two different arguments are virtually identical. Both imply that the only reasonable way to view policies to reduce fertility is as activities in which one segment of society (the rich) is offering another segment (the poor) compensation to elicit a change in behavior.

Where there are true externalities, the rich may also end up as well or better off in terms of income than they were, because everyone can benefit from the overall efficiency gain.

Where there are not true externalities, the poor are made better off in the sense of real income while the rich gain in terms of utility by financing the necessary social programs.

Birdsall and Griffin outline briefly the program implications of this "welfare" approach: more emphasis on a package of targeted social programs, and more emphasis in family planning services on client welfare and contraceptive choice.

This paper — a joint product of the Office of the Director, Policy Research Department, and the Population and Human Resources Operations Division, Eastern Africa Department — is part of a continuing effort in the Bank to assess the implications for poverty of various sectoral and economywide policy changes. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Ella Hornsby, room J10-206, extension 35742 (26 pages).

1159. Stock Market Development and Financial Intermediary Growth: A Research Agenda

Asli Demirgüç-Kunt and Ross Levine
(July 1993)

The relationship between the development of stock markets and the functioning of *financial intermediaries may be complementary.*

Empirical evidence suggests that financial services — such as mobilizing savings, managing risk, allocating resources, and facilitating transactions — influence and are influenced by economic development. And financial crises — widespread bank failures, the collapse of stock markets — can impede and even reverse economic advances.

With this in mind, the World Bank made special efforts in the 1980s to help countries improve their financial systems and cope with financial crises that threatened economic prosperity. Bank programs focused on core financial themes (loosening up interest rates, reducing government involvement in credit allocation, rationalizing taxes on financial intermediaries) and on managing bank failures, rehabilitating insolvent banks, and training bank managers and supervisors.

Recently, Bank programs have stressed the development of capital markets, especially stock markets, but little research has been done in measuring the level of stock market development or understanding the relationship between the development of stock markets and the functioning of financial intermediaries.

Demirgüç-Kunt and Levine did some preliminary research on these issues and suggest further topics for research.

They propose different empirical indicators of "stock market development." They also suggest how to use these indicators to help evaluate stock market development policies.

They find that the relationship between the development of stock markets and the functioning of financial intermediaries may be complementary.

This paper — a product of the Finance and Private Sector Development Division, Policy Research Department — is part of a larger effort in the department to evaluate the development and role of emerging stock markets. The research outlined here will be funded by the Bank's Research Support Budget under research project "Stock Market Development and Financial Intermediary Growth" (RPO 678-37). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room N9-059, extension 38526 (35 pages).

1160. Equity and Bond Flows to Asia and Latin America: The Role of Global and Country Factors

Punam Chuhan, Stijn Claessens, and Nlandu Mamingi
(July 1993)

Equity and bond flows to a sample of Asian and Latin American countries are about equally sensitive to global factors and to country-specific factors.

Chuhan, Claessens, and Mamingi investigate what has motivated the large portfolio flows to several developing countries in recent years.

Using monthly data on U.S. capital flows to nine Latin American and nine Asian countries (instead of monthly reserves data), they analyze the behavior of bond and equity flows to those countries.

Using panel data, they find that global factors — such as a drop in U.S. interest rates and the slowdown in U.S. industrial production — are important in explaining capital inflows. But country developments are at least as important in determining those flows, especially for Asia.

They also find that equity flows are more sensitive than bond flows to global factors, but that bond flows are generally more sensitive to a country's credit rating and to the secondary market price of debt.

This paper — a product of the Debt and International Finance Division, International Economics Department — is part of a larger effort in the department to study the determinants of capital flows to developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room S8-042, extension 31047. (36 pages).

1161. Increasing Women's Participation in the Primary School Teaching Force and Teacher Training in Nepal

Molly Maguire Teas
(July 1993)

Recruiting and training more women in primary education requires more effective communication and more effort to provide culturally acceptable travel to and accommodations near training centers.

Although research shows that Nepalese parents prefer sending girls to schools with female teachers, only 12.8 percent of Nepalese primary school teachers are women. Nepal has among the lowest enrollment and retention rates for girls in the world. One strategy to correct the situation is to increase the number of women who become and remain teachers. But teacher training is also important; 60 percent of Nepalese teachers are untrained, so the quality of education is poor — often rote memorization, with the teacher simply reading textbooks aloud.

Teas tried to find out what factors affect Nepali women's decision to join the primary school teaching force and to participate in in-service teacher training. Prior studies, using large survey methods, did not provide the information program planners needed. The author chose a research strategy more appropriate to the Nepali culture by combining quantitative and qualitative methods.

Teas focused on the participation of women in the primary teaching force and on two in-service teacher training projects: the Primary Education Project (PEP) and the Radio Education Teacher training Project (RETT). In the PEP, teachers from 10 to 15 primary schools receive in-service training in short sessions at a resource center. They get roughly a dollar a day to cover their food and lodging costs. The RETT provides in-service training to primary teachers through daily radio broadcasts, plus written assignments and monthly meetings in resource centers. Gender disaggregated information on the RETT and the PEP programs had never been collected. The author hypothesized that female teachers' needs are different from those of their male counterparts and this would reflect in differential participation rates. Among Teas's conclusions:

- Women are more likely to be recruited as teachers or into training programs if information about positions and programs is made available to them in a timely, accessible way. To do this, extension agents could be hired to bring information *from* the ministry or program *to* intended beneficiaries. Teaching positions and training programs could be advertised in short radio messages and in letters to primary school principals.
- Women are less likely to get training if the resource center is inaccessible. To counter disincentives for women to travel away from their homes and villages, cul-

turally acceptable travel companions, lodging, and childcare should be provided.

• The current broadcast time for radio training conflicted with women's household responsibilities. Changing the time to later in the evening would increase female participation in the program.

• Women often lacked family support to become teachers or to become trained. To increase such support, existing incentives (including allowances and salary increases) should be publicized.

This paper — a product of the Population and Human Resources Operations Division, Country Department I, South Asia — is part of a larger effort in the Region to increase equity for women in education. The study was funded by the Bank's Research Support Budget under research project "Increasing Educational Equity for Women in Nepal" (RPO 676-98). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lydia Maningas, room D9-015, extension 80380 (59 pages).

1162. The Slovenian Labor Market in Transition: Issues and Lessons Learned

Milan Vodopivec and Samo Hribar-Milic
(July 1993)

To stimulate the efficient reallocation of labor, transitional economies should direct resources away from programs to preserve jobs and into programs to create new jobs; allow for flexible determination of relative wages but retain incomes policy; and build support for reform by promoting cooperation among parties involved in collective bargaining.

Yugoslavia (including Slovenia) has been more market-oriented than the rest of Eastern Europe, with little or no planning and healthier development of product markets. Until recently, however, the labor market in Slovenia was subject to formidable constraints.

But sweeping legislative changes and a dramatic change in the climate of the Slovenian economy have produced major shifts in the allocation of Slovenia's labor force. Most important, the Rubicon of job security has been crossed: Slovenian workers — who like other Yugoslav workers were more protected from job loss than workers in most socialist countries — can now be laid off. Partly as a result of layoffs and bankruptcies, there has been a dramatic increase in unemployment — from 1.5 percent in the mid-1980s to 12.5 percent in January 1993. Moreover, social sector employment decreased 17.6 percent from December 1989 to December 1991, and the labor force participation rate dropped by nearly 8 percentage points.

Among lessons learned about the labor market in Slovenia's transition to a market economy:

• Governments in transitional economies tend to preserve current jobs through employment subsidies and by subsidizing early retirement. To stimulate the efficient reallocation of labor, they should redirect resources away from programs to preserve jobs into programs to create new jobs. And to increase the flexibility of adjusting firms' workforces, transitional economies should legislate simple layoff procedures and should not assign firms the responsibility for financing redundant workers.

• It may be easy to demolish the old system of determining wages, but it is difficult to develop a new, well-functioning system. One country cannot simply copy another's methods. It is important to provide for a minimum wage, but it is inefficient to establish a complete wage structure, or to provide for automatic cost-of-living adjustments which hinder wage moderation and make the wage structure inflexible. Moreover, while state and social ownership prevail, an incomes policy is a must.

• The trial and error approach to finding the right mix of active labor market policies is unavoidable. But governments should evaluate the effectiveness of such programs and weigh them against alternative policies aimed at reducing unemployment — notably increased public spending and investment tax credits.

• Unilateral government action is counterproductive. To overcome mutual hostility and achieve cooperation, governments should, among other things, consult with trade unions on the legislation and programs to be introduced, and wage a public relations campaign to demonstrate the unavoidability of reform and to emphasize program successes.

This paper — a product of the Transition and Macro-Adjustment Division, Policy Research Department — is part of a larger effort in the department to investigate how labor markets work during the transition of socialist economies. It is one of the outputs of the research project "Labor Market Dynamics during the Transition of a Socialist Economy" (RPO 677-20) funded by the Bank's Research Support Budget. This paper was prepared for the 24th National Convention of the American Association for the Advancement of Slavic Studies, held in November 1992 in Phoenix, Arizona. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Sabah Moussa, room N11-017, extension 39019 (37 pages).